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THE

Maryland Agricultural College

QUARTERLY

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NO. 56. MAY 1912.

FEED STUFF ANALYSES

The New Agricultural Lime Inspection Law.

R. W. SILVESTER, President

Edited by H. B. McDONNELL, State Chemist

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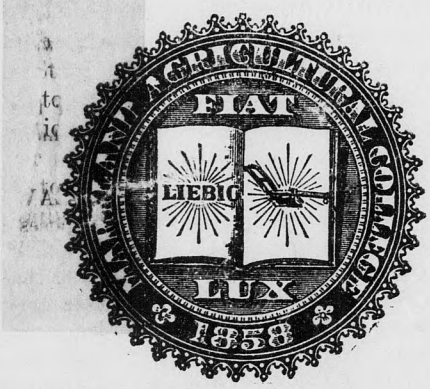

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Issued in the Months of February, May, August and November

ADDRESS

Chemical Department, Maryland Agricultural College

COLLEGE PARK, MD.

ANALYSES OF

Commercial Feeding Stuffs Sold in Maryland

BY THE CHEMICAL DEPARTMENT OF

The Maryland Agricultural College

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This bulletin contains the results of analyses of feeds made in this laboratory from December, 1911, to April, 1912, inclusive. (See pages 4 to 7.)

Explanation of terms used and average analyses of well-known feeds for comparison have been given in former bulletins.

For bulletins on the general subject of feeding or the feeding of any class of animals or poultry apply to the U. S. Department of Agriculture, Washington, D. C.

The new AGRICULTURAL LIME INSPECTION LAW is printed herewith (pages 3 and 8). All lime for agricultural purposes is now required by law to be sold under guarantee as to the amount of lime present. Other constituents may be guaranteed also, and it is expected that the amount of magnesia be guaranteed, when present in appreciable amount. Magnesia, when present in moderate amount, may be regarded as equal in value to the same amount of lime. As used in analysis "Lime" means the oxide of calcium, the chemical formula being "CaO", and "Magnesia" the oxide of magnesium, "MgO.".

All forms of "quick" or burnt lime undergo rapid change on exposure to the air, the principal one being the taking up of water or "air slacking". This increases the weight and correspondingly decreases the PER CENT of lime as shown by analysis. Lump lime is difficult to sample because of the lumpy condition, as the various lumps may differ greatly in composition.

For the present at least this department will not be able to analyze samples of lime for consumers of the same except by special arrangement. Only a few analyses can be made annually of each brand or kind of lime to see that the guarantee of the seller is maintained.

THE LIME INSPECTION LAW OF MARYLAND

(Chapter 176 of the Acts of 1912. In effect June 1, 1912.)

Section 91. Every manufacturer, company or person who shall sell, offer or expose for sale or for distribution in this State any agricultural lime as defined in the following section of this sub-title, used as a fertilizer or land improver, shall affix to every package of such agricultural lime, in a conspicuous place on the outside thereof a plainly printed statement, clearly and truly certifying the number of net pounds in the package sold or offered for sale, the name of the manufacturer or shipper, the place of manufacture, the place of business, the source and state of combination and a chemical analysis stating the minimum percentage of oxide of lime contained therein, Provided, that in case the agricultural lime is shipped in bulk it shall be accompanied by at least one such statements affixed in a conspicuous place on the carrier of such agricultural lime, or adjacent thereto.

Sec. 92. The term agricultural lime, as here used, shall include all quick lime, both lump and ground, ground lime stone, ground or pulverized oyster shells, sulphate of lime or plaster, hydrated lime, gas lime, marl and all other similar products.

Sec. 93. Before any agricultural lime is sold, offered or exposed for sale in this State, the manufacturer, importer, agent or seller thereof shall pay to the State Chemist at the Maryland Agricultural College an inspection fee of $15.00 for each brand or kind of agricultural lime sold or offered for sale and shall receive from said State Chemist a license to sell such brand or kind of agricultural lime until the first day of January next following; provided that when any manufacturer, importer, agent or dealer shall have paid the inspection fee as herein provided it shall not be necessary for any other person as his agent or representative to pay such fee.

Sec. 94. Any manufacturer, importer or person, who shall sell, offer or expose for sale or for distribution in this State any agricultural lime without complying with the preceding sections of this subtitle, shall on conviction in a Court of competent jurisdiction, be fined not more than one hundred dollars ($100.00) for the first offense and not more than two hundred dollars ($200.00) for each subsequent offense.

Sec. 95. The State Chemist of the Maryland Agricultural College shall annually analyze, or cause to be analyzed, at least one sample of every agricultural lime sold or offered for sale under the provisions of this sub-title, said State Chemist is hereby authorized and directed in person, or by deputy, to take a sample for said analysis from any lot or package of agricultural lime which may be in the pos-

(CONTINUED ON PAGE 8.)

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Analysis of Feeding Stuffs.

No.	Name of Manufacturer or Agent.	Name of Feeding Stuffs.	Place of Sampling.	Protein.		Fat or Ether Extract.		Crude Fibre.	
				FOUND.	Guaranteed.	FOUND.	Guaranteed.	FOUND.	Guaranteed.
24552	American Linseed Co., Buffalo, N. Y.	Pure Ground Oil Cake..	Frederick	35.80	34.00	6.22	5.00	7.76	8.00
24544	American Milling Co., Chicago, Ill.	Amco Hen Feed.....	Laurel	12.37	10.00	3.18	3.00	2.46	5.00
24545	" " " "	Amco Horse Feed.....	Laurel	10.27	10.00	4.14	3.50	4.32	7.50
24546	" " " "	Sucrene Alfalfa Horse & Mule Feed.	Laurel	12.20	11.00	3.93	2.50	12.22	12.00
20284	" " " "	Sucrene Dairy Feed	Sparks	17.20	16.50	4.45	3.50	10.60	.....
24551	Ajax Milling & Feed Co., New York, N. Y.	Ajax Flakes.....	Baltimore	31.94	30.00	13.58	11.00	9.62	12.00
24507	Archer-Daniels Co., Minneapolis, Minn.	Ground Oil Cake	Baltimore	35.98	32.00	6.63	6.00	6.46	10.00
24530	Baldwin, Prince & Co., Norfolk, Va.	Dominion Prime Cotton Seed Meal.	Baltimore	41.86	38.62	8.85	7.00	6.75	10.00
24508	Baugh & Sons Co., Baltimore, Md.	Meat Meal for Poultry..	Baltimore	48.91	50.00	10.30	10.00	.78	1.00
20292	Berg Co., Philadelphia, Pa.	Three Medal Poultry Meal.	Baltimore	55.02	50.00	15.67	13.00	1.00	1.00
20297	J. Bolgiano & Son, Baltimore, Md.	Square Deal Beef Scrap	Baltimore	40.72	40.31	19.68	15.00	.96	.....
24502	" " " "	Square Deal Chick Food	Baltimore	10.07	10.01	3.15	3.89	3.07	2.76
24550	" " " "	Square Deal Chick Starter.	Baltimore.....	9.92	9.48	3.21	4.14	2.92	2.70
24509	" " " "	Square Deal Pigeon Food	Baltimore	12.60	12.55	3.50	3.47	3.32	2.76
20298	" " " "	Square Deal Poultry Food.	Baltimore. ...	10.79	11.50	3.89	3.87	3.14	2.70
24574	H. E. Bridges & Co., Memphis, Tenn.	Cotton Seed Meal.....	Rising Sun	41.33	41.00	7.57	9.00	8.15	9.00
20285	F. W. Brode & Co., Memphis, Tenn.	Cotton Seed Meal	Phoenix	40.63	41.00	8.33	.....	7.24	.....
24547	Buckeye Cotton Oil Co , Cincinnati, Ohio.	Prime Cotton Seed Meal	Laurel	38.00	38.50	7.57	6.50	11.80	8.00
24503	J. J. Buffington & Co., Balto., Md.	Buff Brand Scratch Feed	Baltimore.	10.88	10.00	3.05	2.50	2.35	5.00
24[illegible]	W. J. Byrnes & Co., Chicago, Ill.	Royal Poultry Feed	Gaithersburg	10.44	10.00	3.27	3.00	2.55	5.
24536	Consumer's Cotton Oil Co., Tarboro, N. C.	Prime Cotton Seed Meal	Baltimore	38.68	41.00	7.53	6.00	12.30	.....

	cinnati, Ohio.	Prime Cotton Seed Meal	Laurel	38.00	38.50	7.57	6.50	11.80	8.00
24503	J. J. Buffington & Co., Balto., Md.	Buff Brand Scratch Feed	Baltimore	10.88	10.00	3.05	2.50	2.35	5.00
24	W. J. Byrnes & Co., Chica[illegible], Ill.	Royal Poultry Feed	Gaithersburg	10.44	10.00	3.27	3.00	2.55	5.
24536	Consumer's Cotton Oil Co., Tarboro, N. C.	Prime Cotton Seed Meal	Baltimore	38.68	41.00	7.53	6.00	12.30	.....
24568	Continental Sugar Co., Blissfield, Mich.	Dried Beet Pulp	Hagerstown	9.56	8.00	.82	.50	16.93	20.00
24553	Corby Co., Langdon, D. C.	Dried Brewers Grains	Frederick	22.97	20.00	10.04	7.00	16.38	.....
20286	Corn Products Refining Co., New York, N. Y.	Buffalo Gluten	Parkton	27.03	23.00	2.76	2.50	6.05	.....
24532	Corno Mills Co., St. Louis, Mo.	Nutro Hen Feed	Baltimore	10.35	10.00	3.30	3.50	2.01	5.00
24549	Dairy Food Co., Cockeysville, Md.	Dairy Food	Baltimore	18.34	18.20	5.16	14.55	15.82	14.52
24554	Albert Dickinson Co., Chicago, Ill.	Colonial Developing Feed	Hagerstown	10.44	10.00	2.65	2.50	2.30	5.00
24555	" " " "	White Cross Horse Feed	Hagerstown	10.62	10.00	3.37	2.50	5.27	8.00
24556	" " " "	White Cross Stock Feed	Hagerstown	9.65	10.00	3.14	3.50	4.58	10.00
24557	Douglass & Co., Cedar Rapids, Iowa.	Gluten Feed	Hagerstown	21.76	20.00	2.72	2.00	7.40	8.00
24558	Edwards & Loomis Co., Chica. Ill.	Red Comb Poultry Feed	Hagerstown	11.14	10.00	2.89	2.50	2.28	5.00
24559	J. W. Eshelman, Lancaster, Pa.	Hen Feed	Frederick	11.14	7.00	3.31	2.00	2.00	5.00
24580	J. M. Frisch & Co., Baltimore, Md.	Cotton Seed Meal	Baltimore	41.51	41.00	10.58	8.00	7.19	.....
24537	" " " "	King, Corn & Oats	Baltimore	8.60	8.00	4.25	4.00	11.47	.....
24538	" " " "	Pure Old Process Oil Meal	Baltimore	33.52	32.00	7.17	5.00	8.21	5.00
24539	C. A. Gambrill & Co., Baltimore. Md.	Patapsco Horse Feed	Baltimore	10.62	11.75	4.15	4.60	4.92	7.50
24569	J. J. George & Co., Baltimore, Md.	Farmer's Choice Dairy Feed.	Baltimore	12.81	18.00	3.04	4.00	15.91	.....
24541	" " " "	Monogram Poultry Feed	Baltimore	9.79	8.00	3.24	3.00	2.58	2.00
24523	Gottlieb-Bauernschmidt-Straus Brew. Co., Balto. Md.	Dried Brewers Grains	Baltimore	27.38	26.00	7.14	5.00	13.88	.....
24560	Great Western Cereal Co., Chicago, Ill.	Sterling Feed for Horses & Stock.	Hagerstown	11.32	10.00	4.19	4.00	8.82	6.00
24540	G. A. Hax & Co., Baltimore, Md.	Oats and Corn Feed	Baltimore	11.50	.....	4.66	.....	4.32	.....
20283	Humphreys, Godwin Co., Memphis, Tenn.	Cotton Seed Meal	Westminster	38.70	41.00	7.04	6.00	10.33	8.00
24513	" " " "	Cotton Seed Meal	Westminster	40.02	41.00	8.17	6.00	5.36	8.00
24561	C. A. Krause Milling Co., Milwaukee, Wis.	Badger Dairy Feed	Hagerstown	18.87	16.00	5.00	1.25	13.37	15.00

No.	Name of Manufacturer or Agent.	Name of Feeding Stuffs.	Place of Sampling.	Protein.		Fat or Ether Extract.		Crude Fibre.	
				FOUND.	Guaranteed.	FOUND.	Guaranteed.	FOUND.	Guaranteed.
24570	C. A. Krause Milling Co., Milwaukee, Wis.	Badger Evergreen Feed.	Cumberland...	12.55	10.00	1.08	1.00	13.68	30.00
24562	" " " "	Horse and Mule Feed..	Hagerstown...	18.43	10.00	3.98	2.00	14.18	12.00
20281	Keeton-Krueger Co., Atlanta, Ga.	Cotton Seed Meal	Hagerstown...	40.02	38.62	8.60	6.00	10.14	12.00
24531	G. G. Major Co., Toledo, Ohio.	Old Process Oil Meal...	Baltimore.....	32.56	30.00	7.08	5.00	8.57	2.10
24510	Michigan Sugar Co., Saginaw, Mich.	Dried Beet Pulp.....	Baltimore.....	8.42	8.00	.82	.50	18.65	20.00
24575	Louis Muller Co., Baltimore, Md.	Dried Grains	Walkersville ..	17.38	.....	10.27	.....	13.35	.....
24534	North Carolina Cotton Oil Co., Henderson, N. C.	Cotton Seed Meal.....	Baltimore.....	37.38	38.62	7.68	4.00	10.65	10.00
24518	North-West Mills Co., Winona, Minn.	Sugarota Dairy Feed...	Baltimore.....	16.15	16.00	5.25	3.00	16.68	12.00
24571	" " " "	Sugarota Horse Feed...	Cumberland...	9.04	12.00	2.64	3.50	12.57	.....
24519	" " " "	Sugarota Swine Feed...	Baltimore.....	16.94	18.00	5.08	4.00	8.25	.....
20293	Park & Pollard Co., Boston, Mass.	Blue Ribbon Beef Scraps	Baltimore.....	52.76	45.00	16.34	12.00	.43	.....
20294	" " " "	Dry Mash Feed.....	Baltimore.....	20.45	20.00	4.19	3.00	8.80	.....
24504	" " " "	Gritless Chick Food....	Baltimore.....	15.53	10.00	3.90	2.77	2.23	.....
20295	" " " "	Growing Feed.....	Baltimore.....	14.22	14.00	5.01	3.00	7.30	.....
24505	" " " "	Screened Scratch Feed.	Baltimore.....	10.44	10.00	3.05	3.00	2.90	.....
20288	Perot Milling Co., Buffalo, N. Y.	Malt Sprouts.....	Reisterstown..	25.45	25.00	1.38	1.10	9.82	.....
24572	Pioneer Cereal Co, Akron. Ohio.	Pioneer Stock Feed....	Cumberland...	9.56	10.00	4.85	3.50	7.70	10.00
24563	Quaker Oats Co., Chicago, Ill.	Blue Ribbon Dairy Feed	Middletown....	25.71	25.00	5.17	4.00	8.92	9.00
24564	" " " "	Daisy Dairy Feed.....	Middletown....	12.55	15.00	3.14	9.00	7.05	12.00
24566	Quaker Oats Co., Chicago, Ill.	Molasses Dairy Feed...	Woodsboro....	16.85	16.00	5.04	4.00	13.27	13.00

24566	Quaker Oats Co., Chicago, Ill.	Molasses Dairy Feed...	Woodsboro....	**16.85**	16.00	**5.04**	4.00	**13.27**	13.00
24565	" " " "	Schumacher, Calf Meal.	Frederick.....	**19.04**	19.00	**7.52**	8.00	**1.90**	3.00
24520	" " " "	Schumacher Special Horse Feed.	Baltimore.....	**10.09**	9.25	**4.33**	3.25	**6.18**	9.00
20289	" " " "	Schumacher Stock Feed	Cockeysville..	**10.35**	10.00	**4.39**	3.25	**7.35**	.....
24567	" " " "	Victor Feed.....	Monrovia.....	**9.65**	7.50	**5.55**	3.00	**7.67**	12.00
24525	Ralston Purina Co., St. Louis, Mo.	Protena Dairy Feed....	Baltimore.....	**20.88**	20.00	**5.04**	3.50	**13.82**	14.00
24500	" " " "	Purina Chicken Chowder	Baltimore.....	**19.22**	16.00	**2 16**	2.50	**6.80**	9.00
24526	" " " "	Pruina Feed	Baltimore.....	**13.51**	12.50	**4.46**	4.00	**10.43**	9.80
24511	W. G. Scarlett & Co, Baltimore, Md.	Ground Beef Scrap.....	Baltimore.....	**54.69**	50.00	**10.30**	10.00	**1.05**	1.00
24527	" " " "	Oriole Brand H. G. Poultry Feed.	Baltimore.....	**10.62**	11.00	**4.10**	3.70	**3.52**	4.00
24512	" " " "	Oriole Brand H. G. Poultry Mash.	Baltimore.....	**16.50**	15.00	**4.90**	4.50	**7.25**	10.00
24514	C. S. Schermerhorn & Son, Baltimore, Md.	Cotton Seed Meal.....	Baltimore.....	**41.68**	.....	**8.49**	.....	**8.26**	.....
24528	" " " "	Old Process Oil Meal...	Baltimore.....	**33.17**	31.50	**6.63**	7.00	**7.74**	10.00
20282	A. J. Scott, Salisbury, Md...	S. & B. Balanced Ration	Salisbury.....	**17.11**	23.50	**4.34**	8.00	**10.65**	.....
20296	W. A. Simpson & Co., Baltimore, Md.	Champion Brand Beef Scrap.	Baltimore.....	**57.04**	50.00	**9.31**	10.00	**.80**	1.00
24506	" " " "	Champion Brand Scratch Feed.	Baltimore.....	**9.92**	10.00	**3.45**	2.25	**2.25**	2.50
20290	Southern Cotton Oil Co., Charlotte, N. C.	Boveta.....	Reisterstown..	**15.53**	12.00	**4.13**	8.00	**24.31**	—
24501	" " " "	Cotton Seed Meal.....	Westminster..	**40.63**	38.62	**7.10**	6.00	**9.30**	10.00
24529	Southern Fiber Co., Portsmouth, Va.	Cotton Seed Feed Meal.	Baltimore.....	**19.13**	22.00	**4.38**	4.00	**21.57**	22.00
24521	" " " "	Ko Bos Dairy Feed.....	Baltimore.....	**15.80**	16.00	**3.19**	3 10	**27.22**	32.00
24542	Universal Oil & Fertilizer Co., Wilmington, N. C.	Crown Brand Ko Pres Ko.	Baltimore.....	**24.31**	23.00	**8.67**	5.50	**20.17**	17.00
24522	Van Iderstine Co., Long Island City, N. Y.	Darling's Pure Ground Beef Scrap.	Baltimore.....	**59.14**	55.00	**10.78**	10.00	**1.12**	3.00
24535	R. C. Wells & Co., Baltimore, Md.	O. C. Feed.....	Baltimore.....	**11.85**	10.71	**4.98**	4.63	**6.97**	5.05
20291	Western Grain Products Co., Hammond, Ind.	Hammond Dairy Feed..	White Hall....	**17.11**	17.00	**4.73**	3.00	**10.65**	.....
24543	R. A. Wooldridge Co., Baltimore, Md.	Beef Scrap for Poultry.	Baltimore.....	**68.25**	.....	**14.88**	.....	**.65**	.....

session of any manufacturer, importer, agent or dealer, or in transit in this State, the result of the analysis of the sample or samples so procured, together with such additional information as circumstances advise, shall be published in reports or bulletins from time to time.

Sec. 96. Any person who shall obstruct the State Chemist or his deputy, when in the discharge of his duty, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars ($100.00) or more than five hundred dollars ($500.00) or by imprisonment for not less than one month or more than six months, or by both such fine and imprisonment.

Sec. 97. It shall be the duty of the State Chemist to pay into the Treasury of the Maryland Agricultural College all monies received under Section 93 of this sub-title to be used for paying the expenses of the sampling, analysis and other expenses incident thereto.

Sec. 98. All samples of lime for analysis by or under the direction of the State Chemist shall be from goods that have not been injured in transit or by exposure, the surface layer to be avoided when sampling oxide of lime and the sample to be protected by immediately placing the same in a closed vessel or vessels and promptly sending same to the chemist for analysis, copies of the results of such analysis or analyses are to be sent to the person from whom the sample was received and to the manufacturer of the same. No analysis shall be published till the manufacturer has been given at least one week in which to file a protest in regard to the accuracy of the analysis, in which event the State Chemist shall personally review the analysis before publishing the same.

Sec. 99. If any purchaser of agricultural lime shall be injured by the guarantee of oxide of lime or other valuable ingredient falling short of the guaranteed amount the measure of such injury which the purchaser is entitled to recover from the seller shall be twice the amount that the ratio of such shortage bears to the selling price; provided, that if the amount found is less than nine-tenths of the amount guaranteed the vendor shall be liable to a further penalty of a fine of twenty-five dollars ($25.00) for the first offense and fifty dollars ($50.00) for each subsequent offense, said fine to be paid into the fund provided for in Section 97.

Sec. 100. The State Chemist is empowered to make such reasonable rules and regulations as may be necessary for the sampling, analysis and otherwise in carrying this Act into effect.